LifeSize® Phone™

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User Guide

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Contacting Customer Support

If you have questions, concerns, or need assistance, contact your LifeSize Channel Partner.

Providing Customer Feedback

LifeSize Communications welcomes your comments regarding our products and services. If you have feedback about this or any LifeSize product, please send it to feedback@lifesize.com. Contact information for LifeSize Communications is as follows:

Method	*Address*
Internet	http://www.lifesize.com
E-mail	support@lifesize.com
Phone	(877) LIFESIZE or (877) 543-3749 (512) 347-9300
Fax	(512) 347-9301

Welcome to LifeSize Phone

LifeSize Phone is the high definition audio conference phone. Powered by 16 always-on microphones, circular microphone array, and beam forming technology, the LifeSize Phone delivers superior room coverage, speaker detection, clarity, and echo cancellation for conferences in executive offices to large conference rooms. Its elegant, non-intrusive design provides flexible connectivity.

You can use LifeSize Phone as a standalone audio conferencing device or fully integrated with LifeSize video communications systems. LifeSize Phone is simple to use and provides full function, multi-participant conferencing capabilities.

LifeSize Phone provides Voice over IP (VoIP) connectivity and works with any standard SIP or H.323 IP PBX or IP service provider or standard analog phone lines and is powered via Power over Ethernet (PoE).

The LifeSize Phone meets the following environmental specifications:

Operating Temperature	0°C to 40°C
Operating Humidity	10% to 85%, non-condensing
Storage Temperature	-30°C to 55°C
Storage Humidity	10% to 90%, non-condensing
Altitude	0 to 10,000 feet

Installing LifeSize Phone

Your LifeSize Phone package includes the following components:

- Tabletop console with integrated keypad and display
- Power over Ethernet cable
- Quick reference card
- Documentation CD, including this guide and the LifeSize *End User License Agreement* in all supported languages. Refer to **www.lifesize.com** for product Release Notes.
- Safety and Regulatory Notices

Supported Configurations

LifeSize Phone is available in these configurations:

- LifeSize Phone for use with IP

  Note: This configuration requires that you supply a power adapter that is IEEE 802.3af compliant where Power over Ethernet (PoE) is unavailable. Refer to www.lifesize.com for details or contact your LifeSize product reseller.

- LifeSize Phone for use with LifeSize Room

  Note: Refer to the LifeSize Room documentation for details about installing, configuring, and using the speakerphone with LifeSize Room.

Setup for IP Use

To set up the LifeSize Phone for use with IP in your environment, follow these steps:

Note: Refer to the quick reference card included in your product package for a visual depiction of the proper setup.

1. Insert the Ethernet cable into the port on the underside of the phone closest to the center; this port is marked with the LAN symbol 品. The exterior port is reserved for future use. Ensure the cables are secured into the guides to avoid damage to them.
2. Insert the opposite end of the Ethernet cable into the PoE adapter or the PoE port on the wall. If using a PoE adapter, plug the remaining end into the network port on the wall. You must supply a power adapter that is IEEE 802.3af compliant where PoE is unavailable.
3. The LifeSize Phone boots, and you are prompted to configure it the first time.

Configuring Your LifeSize Phone

Once you have set up your LifeSize Phone in your environment, you are prompted to configure the system for your locale and network. You can change preferences such as the display language, administrator password (for accessing advanced preferences), dialing options for use with IP connectivity, and other preferences. You can also change the phone name and number that appears in the phone display.

Note: For security reasons, LifeSize recommends you change the default administrator password during the initial configuration.

The following keys provide navigation during configuration:

Keypad Key	Function
	Toggles values, activates the cursor in a field, and accepts changes to a field.
	Behaves as up and down keys when scrolling through preferences. Volume Down also changes the text entry mode when editing a text field.
	Behaves as **Back** when returning to a previous screen or **Backspace** during text entry.
	Behaves as **Cancel** when changing preference values.
	Moves a selected item down in an ordered list.
	Moves a selected item up in an ordered list.

Once you have completed the initial configuration, you can then place calls, receive calls, or configure additional preferences by accessing the administrative menu.

Advanced Configuration

The administrator configuration provides access to advanced preferences. To access the administrator configuration, follow these steps:

1. Press sequentially when the phone is idle.
2. Enter the default administrator password (1 2 3 4 by default) and press .

   If you enter an incorrect password, the **Login Failed** message displays. After six seconds you return to the main screen.

If you successfully enter the password, the **Main Menu** displays with the following options:

- 1 - Preferences
- 2 - System Info (read only information)
- 3 - Diagnostics
- 4 - Help

3. Select an option and press the key to scroll through menu options.
4. Press the key to toggle values or to activate the cursor in a field. Press the key again to accept your change.

   Note: If you remain idle on any preference screen for two minutes, you return to the main screen. If you remain idle on the **Main Menu**, you return to the main screen.

5. When you have finished setting preferences, press the key to save them.
6. Press redial to return to the previous screen.

Configuration from a Web Browser

You can also configure your LifeSize Phone from a web browser by navigating to the URL displayed at the bottom of the administrator configuration **Main Menu** on your LifeSize Phone. On the login screen, choose the language in which to display the interface, enter the administrator password, and click **Submit**.

You must have Flash Player installed and configured on your web browser to access the administrator configuration from a web browser. You can download the Flash Player from **www.macromedia.com**. Refer to the *LifeSize Phone Release Notes* for required version information.

Configuring Network Settings

To configure network settings, access the administrator preferences as described in ”Advanced Configuration” on page 5, or access these preferences from a web browser as described in ”Configuration from a Web Browser” on page 6. From the **Network : General** menu, you can establish DHCP or Static IP network settings.

Note: If you change IP settings, the system may automatically restart.

Dynamic Host Configuration Protocol (DHCP) is used to dynamically allocate and assign IP addresses. DHCP allows you to move network devices from one subnet to another without administrative attention. You can choose to enable DHCP if a DHCP server is present. If you disable DHCP, you must identify an IP address (the locally configured IP address if not assigned by a DHCP server), subnet mask (used to partition the IP address into a network and host identifier), and gateway (IP address of the default gateway the system uses).

You can also define the hostname of the system and identify the IP addresses to configure DNS servers.

As well, you can define the domain names to search when resolving hostnames. Domain Name System (DNS) is used for translating names of network nodes into addresses; specify this preference to use DNS to resolve the hostnames of devices to IP addresses.

Configuring Your Phone for Use with SIP

Session Initiation Protocol (SIP) is the Internet Engineering Task Force's (IETF's) standard for multimedia conferencing over IP. SIP is an ASCII-based, application-layer control protocol that establishes, maintains, and terminates calls between two or more devices.

To configure SIP as the protocol to use for placing calls, access the administrator preferences as described in ”Advanced Configuration” on page 5, or access these preferences from a web browser as described in ”Configuration from a Web Browser” on page 6. From the **Communications : SIP : General** menu, enter the username, SIP server authorization name, and password for the device, if required. The authorization name and password are the values LifeSize Phone uses for authentication; these values are only required if the registrar or proxy require authentication.

You can also configure the SIP registrar and proxy settings to enable and configure the SIP proxy and SIP registrar (from the **Communications : SIP : Proxy** and **Registrar** menus). SIP devices use register settings to dynamically register their current location. Advanced SIP preferences enable you to change the SIP UDP or TCP signaling ports and the communication path to use for SIP registration.

Configuring Your Phone for Use with H.323

To make a call using a name or extension with the H.323 protocol you must set the H.323 preferences (access the administrator preferences as described in ”Advanced Configuration” on page 5, or access these preferences from a web browser as described in ”Configuration from a Web Browser” on page 6.). From the **Communications : H.323 : General** menu, enter the name and extension of the device used when making calls with H.323. These are optional values that identify the device to the gatekeeper. Any registered device can dial another using this ID and phone number.

H.323 Name	Also referred to as H.323 ID. This optional value is used when a Gatekeeper is configured and requires the system to register with an H.323 ID. If the Gatekeeper Administrator assigns an H.323 ID for the system, this field should contain that ID.
H.323 Extension	This optional value is used when a Gatekeeper is configured and requires the system to register with an E164 number or extension. If the Gatekeeper Administrator asCsigns an E164 number or extension for the system, this field should contain that number.

Set the **Gatekeeper ID** only if the gatekeeper requires it (for example, configurations with multiple gatekeepers). The **Gatekeeper ID** must match the Gatekeeper ID configured on the gatekeeper to which the system is registering. Do not configure this preference if the gatekeeper does not require it as this may result in failure to register with the gatekeeper.

If the system is registered to a gatekeeper, the system displays its status. If you wish LifeSize Phone to automatically discover an H.323 gatekeeper, set the **Gatekeeper Mode** preference to *Auto* (from the **Communications : H.323 : Gatekeeper** menu). You can also set the gatekeeper to *Manual* to manually choose a gatekeeper. If set to *Manual*, specify the IP address and port for the primary gatekeeper. Configuration of a secondary H.323 gatekeeper is optional.

Configuring NAT/Firewall Settings

A firewall filters traffic coming into your private network from another network with a different zone of trust, such as the Internet. Firewalls often include Network Address Translation (NAT) to enable communication between devices on your LAN that have private IP addresses and devices that are accessed through a public IP network. Static NAT ensures that the same public IP address always maps to a system’s private IP address so that data from the public network intended for the private system can be routed to it reliably.

You can configure the phone to communicate through your firewall with or without static NAT by setting preferences in **Network : NAT**. If you configure your phone to communicate through a firewall, you must configure your firewall to allow incoming and outgoing traffic through:

- TCP port 1720
- UDP port 5060

Configuring Quality of Service

You can specify network Quality of Service (QoS) settings in the **Network : Network QoS** preferences. You should set these preferences according to the settings used in your network.

Using Your LifeSize Phone

Before using your LifeSize Phone, familiarize yourself with its features. The display indicates the phone status, displays configuration menus, and user input. Identification LEDs illuminate or flash to indicate certain conditions.

Using the Keypad

The following table describes the keys on the phone keypad; some of these keys have dual functions depending on when you invoke them.

Key	Description
	Answers an incoming call, initiates a call, obtains a dial tone, or ends the current call.
	Calls or allows additional participants to join the current call. Behaves as **Cancel** during configuration.
	Initiates a video conference. **Note:** The **Video** key behaves as the **Voice** key on standalone phones.
	Dials the previously dialed number. Also serves as **Back** or **Backspace** during configuration.

Key	Description
	Increases or decreases the speaker and ringer volume. Also serves as scroll up and down during configuration. **Volume -** changes text entry mode when editing a text field.
	Enables or disables the mute feature. Also toggles values or activates the cursor in fields during configuration.

Note: Refer to the help on the phone display for information about using these keys.

Placing a Call

To place a call, press and then enter the number using the numeric keys.

Note: When voice dialing (**Preferences : Communications : General**) is set to VoIP, you can dial IP addresses as well as phone numbers.

To add another participant to the call, press , enter the new number, and press the key.

To end the call, press .

Answering, Ignoring, or Rejecting a Call

When receiving an incoming call:

- Press to accept the call.
- Press to ignore the call.
- If you are in another call, you can also press (**Do Not Disturb**) which ignores the new caller and prevents any other calls from interrupting.

Troubleshooting LifeSize Phone

The following sections describe symptoms, possible causes, and potential solutions for common problems you may encounter with your LifeSize Phone.

When experiencing a problem, visually inspect the unit. Ensure the system has not been exposed to water or heat sources or appears physically damaged.

For best performance, follow these guidelines:

- Position the LifeSize Phone in the center of the room.
- Avoid moving the LifeSize Phone during a call.
- Speak at normal conversation levels and direct your voice toward the phone.

Incorrect Cabling

Improperly connected or loose cables are common causes of problems with hardware units. When investigating a system problem, first check all the external controls and cable connections. Check that connections are correct and secure, and that nothing is obstructing the cables.

Verify that power is supplied correctly to the unit through PoE adapter. The LEDs illuminate and the display becomes active with sufficient power.

If connecting your phone with PoE and your network connection does not support PoE, you must use a PoE adapter between the network connection and the phone to supply power. You must supply a power adapter that is IEEE 802.3af compliant. Refer to www.lifesize.com/support for more information.

Inspect connections to any system cables and ensure there are no obstructions or loose cables at either end. Ensure you have connected the network cable correctly to the PoE adapter, wall port, or interface module. Although it is possible to plug in the LAN end to the phone, the phone will not work. Correct the connection by reversing the cable to obtain connectivity to your LifeSize Phone.

IP Address Displays Invalid Value

If the IP address displays an invalid value, or the address on the **Main Menu** displays as http://0.0.0.0, one of the following conditions may be occurring:

Condition	Resolution
The unit is configured to obtain an address using DHCP and no DHCP server is available.	Verify that the unit is plugged into a network that has a DHCP server present.
Faulty Ethernet cable connection.	Replace the Ethernet cable with a high quality cable.
The unit is configured to use a static IP address, but no IP address has been entered in the address field.	Identify and enter the necessary IP information if you disable DHCP.
Network connection is unavailable.	. In this configuration, you cannot access the web configuration since there is no network access.

Poor Quality Display

If you have poor quality or unreadable data on the display, adjust the **LCD Contrast** setting (from the **Preferences : Appearance** menu). The default setting is recommended.

Display Failures

If data does not appear on the phone display, ensure the unit is properly plugged into a PoE connection. Ensure that the Ethernet connector is fully engaged into the RJ-45 jack on the underside of the phone. Also ensure that your Ethernet wall jack connection is PoE (standard Ethernet has no power) for IP use. A bad Ethernet cable connection may also result in display failures; replace it with a high-quality Ethernet cable.

Absent Dial Tone

If you do not receive a dial tone after pressing the

or

key to initiate a call, ensure the speaker volume is adjusted appropriately.

Problematic Sound Quality

If you are unable to hear the phone ring when an incoming call arrives, the speaker volume may be set too low. (The LEDs flash blue to indicate an incoming call.) Adjust the volume using the up and down volume key. If you still experience audio problems, adjust the **Ring Tone Volume** preference (from the **Preferences : Audio** menu).

Muffled reception may be caused by highly reverberant rooms. If you are experiencing poor reception, add more sound absorbency to the room and speak in close proximity to the phone.

Adjust the priority order for your audio codec (from the **Preferences : Audio** menu) if you have chosen a low-bandwidth audio codec to be first.

Ensure that the far end caller has configured the phone correctly and is in an acoustically benign environment. For best results, ensure the far end caller is using a LifeSize Phone.

Distorted Audio

Poor audio quality may result from a bad network connection. Ensure that your network connection is capable of handling the correct bandwidth; LifeSize recommends that your network connection be capable of at least 100Mbps (100-baseT) for best performance.

Also ensure the loudspeaker is not obscured or damaged at either end of the call. Do not stack items on top of the phone. Do not use any kind of liquid or aerosol cleaner on the phone. A soft, slightly damp cloth should be sufficient to clean the top surface of the phone if necessary.

Restoring Default Settings

You may need to reset the phone to its default state (from the **Preferences : System : System Reset** menu) to correct unknown problems you may be experiencing. If this reset fails, you can also manually restore the phone to its default state. Remove power, press and hold the 7, 8, and 9 keys simultaneously, and then reapply power. Hold the keys down until the **Initial Configuration** screen appears.

Upgrading Your LifeSize Phone

To upgrade the software for your LifeSize Phone, follow these steps:

1. Download the upgrade file from the directory on the LifeSize web site to a local directory on your system.

   www.lifesize.com/support

2. Reboot the system.

3. Access the web configuration as described in ”Configuration from a Web Browser” on page 6.

4. Choose the language in which to display the interface.

5. Enter the admin password and click **Submit**.

6. Select **Maintenance**.

7. Select **System Upgrade**.

8. If your upgrade requires you to reset the system to the original default settings, select the **Reset to Default State** checkbox.
9. Browse for the upgrade file you downloaded in step 1.
10. Click **Submit**.

    Note: This may take several minutes; do not disrupt the upgrade process.
11. A system upgrade status message displays when the upgrade is complete. Close the status window and close the administrator configuration window.
12. Your LifeSize Phone is ready to use. If you selected the **Reset to Default State** checkbox in step 8, you must first reconfigure your LifeSize Phone.

Troubleshooting Upgrade Failures

If attempts to upgrade software for your LifeSize Phone fail, follow these steps:

1. Ensure you have a valid upgrade image.
2. Reboot the system.
3. Attempt the upgrade again.
4. If a second attempt fails, note the error code returned. See “Upgrade Error Codes” on page 14 for a description of these codes.
5. If problems persist, contact LifeSize Customer Support.

Upgrade Error Codes

Following are the error codes you may receive when an upgrade fails.

Code	Problem	Description
1	Internal error	The system is missing critical files.
2	Switch to upgrade failed	The command to set the active partition failed.
3	Write failed	A write failure occurred during copying of the image to the upgrade partition. This typically occurs when using an upgrade image for another LifeSize product.
4	Read failed	Reading incoming data failed during the upload of the image. This typically occurs if the connection is broken during the upload.

Code	Problem	Description
5	Upgrade script failed	After the image has been successfully uploaded the system runs an upgrade script for final processing. This error indicates a failure in that script. This typically occurs when using an upgrade image for another LifeSize product.
6	Unable to run upgrade script	The system was unable to run the upgrade script. This typically occurs when using an upgrade image for another LifeSize product.
7	Unable to mount upgrade partition	After the image has been copied to the system, the system failed to mount the image. The typically occurs if the upgrade image is corrupt or when using an upgrade image for another LifeSize product.
8	No permission	The system failed to read the upgrade partition.
9	Corrupt image	The upgrade image is corrupt and unusable. This typically occurs due to a bad image or errors during upload to the device.
10	Bad argument	An invalid argument was submitted to the upgrade process. This typically occurs when using an upgrade image for another LifeSize product.
11	Invalid signature	The encryption signature is invalid. This typically occurs if the image is corrupt or compromised.
12	Decrypt failed	The system was unable to decrypt the upgrade image. This typically occurs if the image is corrupt or compromised.
13	Developer system	The system is configured for development and can only be upgraded by a LifeSize representative.
14	Upgrade in progress	An upgrade is already in progress. The system only supports one upgrade at a time.

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